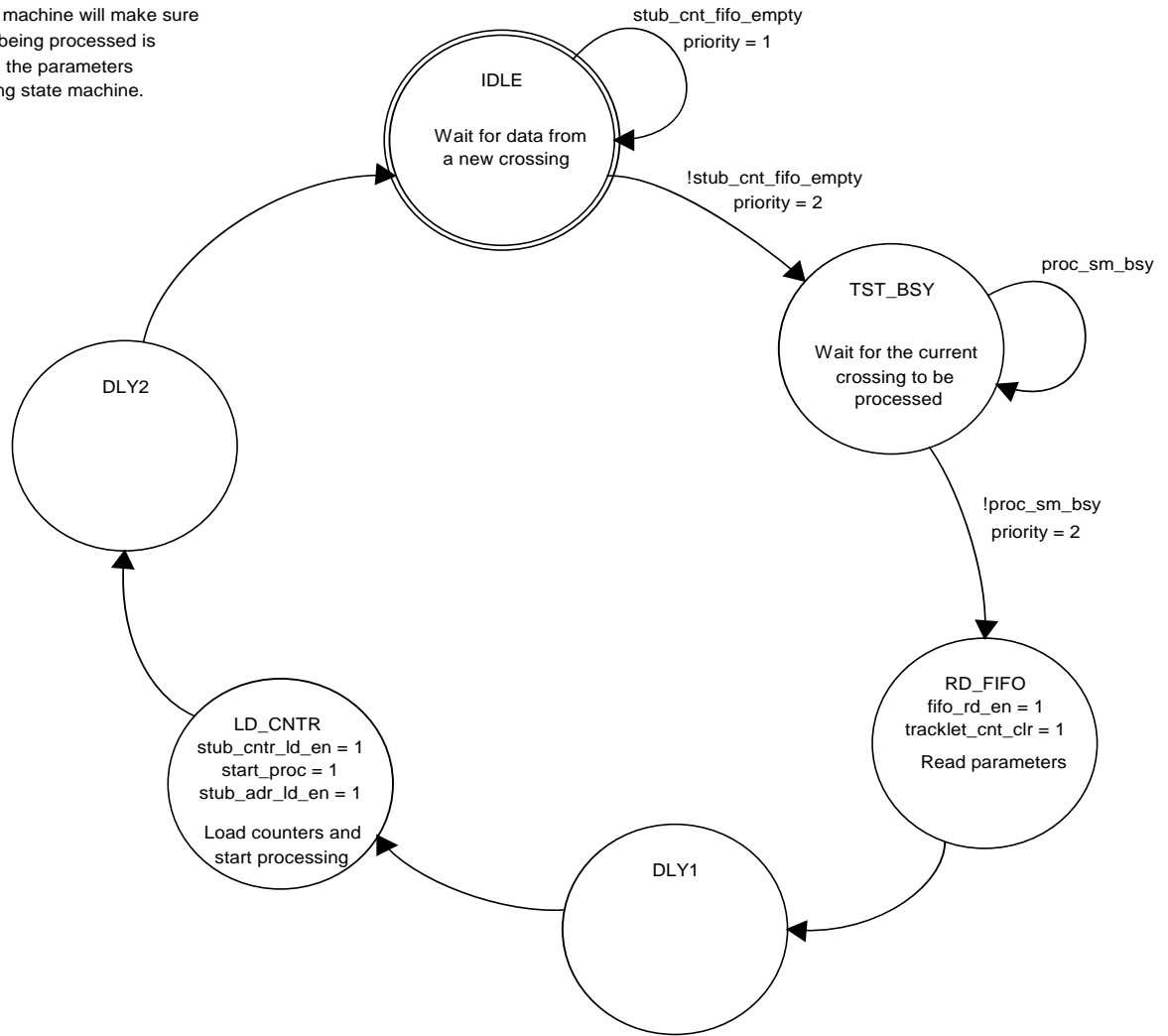


TRACKLET SEARCH - PROCESS A NEW CROSSING

When stubs for a given crossing are ready to be processed, this state machine will make sure that the crossing currently being processed is finished. It will then retrieve the parameters and kick-start the processing state machine.



STATE MACHINE

name	TS_start_new_cross_sm	
clock	clk	posedge
reset_signal	res	positive
reset_state	IDLE	anyvalue
implied_loopback	1	

INPUTS

stub_cnt_fifo_empty	Stubs from a new crossing are ready
proc_sm_bsy	The current crossing is still being processed
clk	Pipeline clock
res	Reset

OUTPUTS

fifo_rd_en	0	comb	Read stub counts from the input FIFO
stub_cntr_ld_en	0	comb	Load stub counters
start_proc	0	comb	Start processing this crossing
stub_adr_ld_en	0	comb	Load address of first stub
tracklet_cnt_clr	0	comb	Clear the accumulated counts from the last crossing

STATES

fifo_rd_en	0	output	Read stub counts from the input FIFO
stub_cntr_ld_en	0	output	Load stub counters
start_proc	0	output	Start processing this crossing
stub_adr_ld_en	0	output	Load address of first stub
tracklet_cnt_clr	0	output	Clear the accumulated counts from the last crossing

TRANSITIONS

equation	1	def_type
priority	1000	